



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,656	10/01/2003	Ronald S. Cok	87021THC	8977

7590 03/19/2007  
Thomas H. Close  
Patent Legal Staff  
Eastman Kodak Company  
343 State Street  
Rochester, NY 14650-2201

EXAMINER
----------

HON, SOW FUN

ART UNIT	PAPER NUMBER
----------	--------------

1772

MAIL DATE	DELIVERY MODE
-----------	---------------

03/19/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action Before the Filing of an Appeal Brief</b>	Application No. 10/676,656	Applicant(s) COK, RONALD S.	
	Examiner Sow-Fun Hon	Art Unit 1772	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 15 February 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See attachment to advisory action.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☒ Other: Attachment to advisory action and PTO-892.

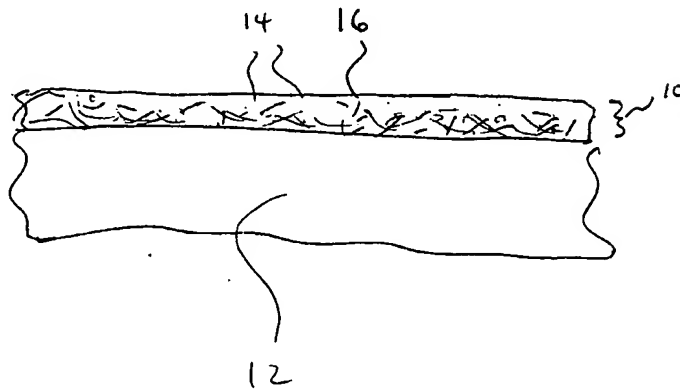
***Advisory Action***

1. The request for reconsideration has been fully considered and deemed unpersuasive for the reasons set forth below.
2. Applicant argues that the reference to filters or polarizers made by Glatkowski is only made with respect to a plurality of differentially-oriented nanotube film layers wherein each layer can be oriented and adjusted, rather than to a filter comprising a layer of nanotubes covered by a layer of polymeric resin binder, since there is not teaching or suggestion that the use of a polymeric overcoat as referenced at page 13, lines 16-17, has any relationship to the embodiment of a filter or a polarizer at page 14, lines 23-24.

Applicant is respectfully reminded that Glatkowski teaches on page 14, that each nanotube film layer, where the nanotubes are preferably oriented in the plane of the film, forms a filter or polarizer, in light of the citation "a plurality of differentially-oriented nanotube film layers wherein each layer can be oriented and adjusted, thus forming filters or polarizers" (page 14, lines 19-24); where the layers, filters and polarizers are all cited in the plural form. Glatkowski teaches on page 13, regarding the nanotube films, that the nanotubes may be dispersed substantially homogeneously throughout the polymeric material, but can also be present in a gradient fashion, or alternatively dispersed as an internal layer (page 13, lines 10-15), which is consistent with the single embodiment in Applicant's specification, Fig. 1, shown on the next page, wherein the carbon nanotube conductors 14 are actually dispersed in the polymeric resin binder 16, but is described by Applicant as a layer of carbon nanotube conductors 14 being

Art Unit: 1772

covered by a colored polymeric resin binder 16 to hold the carbon nanotube conductors 14 in place and to protect them (page 3, lines 24-30).



Glatkowski claims a film wherein the nanotubes are formed in an internal layer of the polymeric material, a film which further comprises a coloring agent (page 40, claims 21, 23), and a film in which the nanotubes are oriented (page 41, claim 33), wherein a film in which the nanotubes are oriented is a filter and/or polarizer, as taught by Glatkowski (page 14, lines 20-24). Therefore, as taught by Glatkowski, the presence of the nanotube conductors in the film provides a conductive filter (page 14, lines 19-24), which is a conductive color filter when a coloring agent is present in the film.

3. Applicant argues that there is no teaching that each nanotube film layer forms a filter or polarizer, but rather that the filters or polarizers of Glatkowski are described in reference to a preferred embodiment where they are formed from a plurality of differently-oriented nanotube film layers, where each layer can be oriented and adjusted, such that it is the differential orientation of the plurality of layers that results in thus forming the referenced filters or polarizers, not that each individual layer is a filter or polarizer.

Applicant is respectfully apprised that it is well known in the art that each individual oriented layer can function as a filter and/or polarizer on its own, and that a combination of a plurality of the oriented layers provides a combination of the filtering and/or polarizing properties of each individual layer. See US 2,493,200 (each of these layers represents a polarizer for a predetermined wavelength band, and in addition the band polarized by one layer is different from that polarized by another, column 12, lines 10-15, Filter 232 is likewise made up of a layer which functions as a minus red dichroic filter for vertically polarized light and a second layer which functions as a minus blue dichroic filter for horizontally polarized light, column 12, lines 40-55). Glatkowski claims a film wherein the nanotubes are oriented in the plane of the film, and then claims another embodiment wherein the film further comprises an additional layer of oriented nanotubes (page 41, claims 33-34). Therefore, a single layer filter, as well as a combination of filter layers, is well within the scope of Glatkowski.

4. Applicant argues that while some further individual features of the carbon nanotube coatings of Glatkowski may be similar to some features of the presently claimed conductive color filters, there is no teaching or suggestion in Glatkowski that the corresponding further cited sections of Glatkowski describing such similar features are in any way directed towards a conductive color filter as presently claimed.

Applicant is respectfully apprised that Glatkowski claims a film wherein the nanotubes are formed in an internal layer of the polymeric material, a film which further comprises a coloring agent (page 40, claims 21, 23), and a film in which the nanotubes are oriented (page 41, claim 33), wherein a film in which the nanotubes are oriented is a

Art Unit: 1772

filter and/or polarizer, as taught by Glatkowski (page 14, lines 20-24). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have provided an oriented film comprising nanotubes in a layer of the colored polymeric material as a filter which is conductive due to the conductive nanotubes, as taught by Glatkowski, in order to obtain a color filter, as evidenced by Ohtsu, which teaches that a coloring agent is added to the polymeric material of a conductive filter to form a conductive color filter.

5. Applicant argues that the use of Ohtsu as evidence that it would have been obvious to one of ordinary skill in the art to have colored the polymeric resin binder covering the conductive film layer of carbon nanotubules in the filter of Glatkowski, is improperly made in hindsight based on Applicant's teachings because the carbon nanotube layer with polymeric resin binder embodiment of Glatkowski is not taught or suggested for use as a filter layer.

Applicant is respectfully reminded that as discussed above, Glatkowski claims a film wherein the nanotubes are formed in an internal layer of the polymeric material, a film which further comprises a coloring agent (page 40, claims 21, 23), and a film in which the nanotubes are oriented (page 41, claim 33), wherein a film in which the nanotubes are oriented is a filter and/or polarizer, as taught by Glatkowski (page 14, lines 20-24). It is well known in the art that each individual oriented layer can function as a filter and/or polarizer on its own, and that a combination of a plurality of the oriented layers provides a combination of the filtering and/or polarizing properties of each individual layer. This is evidenced by US 2,493,200 (each of these layers

Art Unit: 1772

represents a polarizer for a predetermined wavelength band, and in addition the band polarized by one layer is different from that polarized by another, column 12, lines 10-15, Filter 232 is likewise made up of a layer which functions as a minus red dichroic filter for vertically polarized light and a second layer which functions as a minus blue dichroic filter for horizontally polarized light, column 12, lines 40-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have provided an oriented film comprising nanotubes in a layer of the colored polymeric material as a filter which is conductive due to the conductive nanotubes, as taught by Glatkowski, in order to obtain a color filter, as evidenced by Ohtsu, which teaches that a coloring agent is added to the polymeric material of a conductive filter to form a conductive color filter.

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (571)272-1492. The examiner can normally be reached Monday to Friday from 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached at (571)272-1498. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Application/Control Number: 10/676,656

Page 7


Art Unit: 1772

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. I. H.

Sow-Fun Hon

03/09/07

  
RENA DYE  
SUPERVISORY PATENT EXAMINER  
